

CLAIMS

1. An ultrasonic sensor comprising an integral housing including a plurality of tubular containers that are open at one end and closed by bottom parts at the other end and have side parts extending from the one end to the other end, and at least one connecting part that connects the plurality of tubular containers; and piezoelectric devices disposed on respective inner bottom surfaces of the respective bottom parts of the plurality of tubular containers,

wherein, in the housing, the side parts of the plurality of tubular containers are connected to each other, through the connecting part, at portions adjacent to the bottom parts of the tubular containers, with outer bottom surfaces of the respective bottom parts of the plurality of tubular containers being flush with each other, and

the housing further comprises an elastic member that supports the housing.

2. The ultrasonic sensor according to Claim 1, wherein the resonant frequency of the connecting part differs from the drive frequency of the piezoelectric devices.

3. The ultrasonic sensor according to Claim 1 or 2, wherein, in each of the tubular containers, the thickness of a side portion facing toward another tubular container connected through

the connecting part is greater than the thickness of a side portion orthogonal to the side portion facing toward the another tubular container.

4. The ultrasonic sensor according to Claim 3, wherein the outline of the outer bottom surface of each of the tubular containers is polygonal.

5. The ultrasonic sensor according to any one of Claims 1 to 4, wherein the outer bottom surfaces of the plurality of tubular containers and an outer surface of the connecting part form a single flat surface.